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IDENTIFIER:

TITLE: RELUCTANCE TYPE

ELECTRIC ROTATING

MACHINE

PUBN-DATE: March 20, 2003

## INVENTOR-INFORMATION:

NAME COUNTRY

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## **ABSTRACT:**

PROBLEM TO BE SOLVED: To provide a small-sized reluctance type electric rotating machine wherein irreversible demagnetization is not generated, and variable speed operation of high output and high efficiency is enabled in a wide range.

SOLUTION: In the case that an armature having an armature coil (3), and a rotor (5A) which has a region different in magnetic resistance in the circumferential direction are installed, the region whose magnetic resistance of the rotor (5A) is large is provided with a cavity (8) and a ferrite magnet (7). The cavity (8) is provided with a central part (9) and side ends (10) which are continuously in contact with both sides in the circumferential direction of the central part (9) and protruded to the outside in the radial direction. The ferrite magnet (7) is fitted in the central part (9) of the cavity (8). The inner size dimension in the circumferential direction of the side end is made smaller than the inner size dimension in the radial direction of the central part (9) of the cavity (8). The ferrite magnet (7) is magnetized so as to cancel a magnetic flux of an armature current which passes the cavity (8).

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